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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,874	05/15/2001	Jong Su Yi	2598/OJ348	1476

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DARBY & DARBY P.C.
805 Third Avenue
New York, NY 10022

EXAMINER

MACK, RICKY LEVERN

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,874

Applicant(s)

YI ET AL.

Examiner

Ricky L Mack

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5 is/are rejected.
- 7) ☒ Claim(s) 3,4,6 and 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Detailed Action.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities: The detailed description of the invention does not include a reference to a dichroic filter, or the components making up the filter.

Appropriate correction is required.

Claim Objections

3. Claim 1 is objected to because of the following informalities: Claim 1 recites the limitation "the dichroic filter" in lines 17, 23 and 28. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda et al. (6419363).

Ikeda discloses, as in claim 1, a color separating/synthesizing apparatus comprising: a light component separating unit (21) for reflecting a selected one of light components, included in an incident light emitted from a light source (11), in a direction perpendicular to a travel path of the incident light while allowing the remaining light components to be transmitted therethrough along the travel path of the incident light; a first synthesizing unit (3) for receiving the light components transmitted through the light component separating unit, and separating the received light components from each other, the first synthesizing unit also serving to form images respectively corresponding to the separated light components via a first LCD and a second LCD (32, 33), to synthesize the images, and to allow the synthesized image to be directed in a direction perpendicular to the incident light introduced into the dichroic filter¹; a second synthesizing unit (4) for receiving the light component reflected from the light component separating unit, forming an image corresponding to the received light component via a third LCD (42), and reflecting the image in a direction parallel to the travel path of the incident light introduced into the dichroic filter; and a third synthesizing unit (5) for synthesizing light beams respectively containing the images formed in the first and second synthesizing units (3, 4), and allowing the synthesized light to be directed in the direction perpendicular to the incident light introduced into the dichroic filter.

Ikeda disclose the claimed invention including all the limitations of claim 1 and a first polarizing beamsplitter which reflects S-type polarized light (col. 5, lines 17-19), but Ikeda does not explicitly disclose a first color retarder for which incident light transmits through as in claim 2. Ikeda discloses a

¹ The dichroic filter is not explicitly identified in the detailed description of the invention and for the purpose of this action, the dichroic filter is considered to the optical structure for the which light enters and exits.

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first color retarder in another embodiment (fig. 2, ref. 22) where the output light path is parallel to the incident light path. The limitation is considered to be implied by Ikeda on column 6, lines 9-12 where Ikeda states that a number of the parts can be reduced and the examiner interprets this to include the reducing a retarder as disclosed to be one of the differences between figures 2 and 3.

Ikeda discloses, as in claim 5, wherein the third synthesizing unit comprises a fourth polarized beam splitter for allowing the light emerging from the first synthesizing unit to be transmitted therethrough while reflecting the light emerging from the second synthesizing unit, thereby allowing all the light beams to be directed in the direction perpendicular to the travel direction of the incident light introduced into the light component separating unit.

Allowable Subject Matter

6. Claims 3, 4, 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is an examiner's statement of reasons for allowability: The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claim(s), in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in claim(s) 3, 4, 6 and 7, wherein the claimed invention comprises a polarizing plate arranged in a travel path of light emerging from the light component separating unit and allows for an S-polarized component of light to be transmitted therethrough; and a third, fourth or fifth retarder in addition to the a third synthesizing unit which allows the synthesized light to be directed in a direction perpendicular to the incident light, as claimed. The

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combination of all the claimed features are not anticipated or made obvious by the prior art and all of said features are relied upon for a determination of allowability.

Conclusion

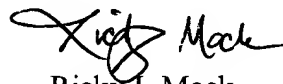
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yi et al. (6678015) is cited for disclosing a similar device filed the same date as the present invention, but Yi's invention does not disclose a fifth retarder, synthesized light through the third synthesizing unit emerging perpendicular to incident light, or a polarizing plate positioned as claimed. The following references are cited for disclosing at least generally relevant component positions: Hirata et al. (20030231286), Chen et al. (20040136067) and Suzuki et al. (20040223119).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricky L Mack whose telephone number is (571) 272-2333. The examiner can normally be reached on Monday-Friday (6:30 AM to 4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ricky L Mack
Primary Examiner
Art Unit 2873

RM
December 12, 2004